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Dean Foote

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09/11/2009

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EXAMINER

PATEL, VISHAL A

ART UNIT

PAPER NUMBER

3676

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/723,846 | <b>Applicant(s)</b><br>FOOTE ET AL. |  |
|                              | <b>Examiner</b><br>Vishal Patel      | <b>Art Unit</b><br>3676             |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/26/09 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation “the backing ring being axially supported against pressure from the opening entirely by the planar surface” is not described in the original disclosure of the application. Furthermore the backing ring is supported by two surfaces one by the planar surface and the other outer surface of the stopper portion.

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The limitations “plastically extruding” is also not supported by the original disclosure of the application.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 3, “a blowout preventer pressure vessel body”, unclear to what applicant is trying to claim, for examination purpose the limitations is considering as claiming a body and nothing more. Applicant is claiming only a seal configuration and not a blow preventer pressure vessels which particular structure. It is also noted that applicant has originally elected the invention of a seal configuration.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hehl (US. 4,690,436).

Hehl (figure 4) discloses a seal configuration comprising a blowout preventer pressure vessel body (10) that contains internal pressure (pressure in body 10), the body having an opening (e.g. opening that receives 14) with inwardly tapered peripheral sidewalls (tapered wall where seal 11' contacts), a closure (closure having 14 and 15 and planar wall of 15) that closes

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the opening, the closure serving as a door (closure is capable of serving a door) adapted to be opened and closed at will, the closure having an attachment portion larger than the opening (this is the case since the opening is closed by the closure) with a planar surface (e.g. planar surface of 15 that contacts 12a), the closure having an axially projecting stopper portion (e.g. stopper portion after 14a that is contacted by ring surface 40 and having the groove to retain the seal) that projects directly from the planar surface (e.g. the stopper portion projects directly after the planar surface) and fits closely and entirely within the opening (e.g. see figure 4, which shows these limitations), the stopper portion having an endless peripheral seal groove (e.g. groove formed by a portion 14 and the planar surface) extending in spaced relation around the axis in which is positioned a peripheral seal (e.g. 11') that sealingly engages the tapered peripheral sidewalls of the body in interference fit relation, thereby conforming to the tapered peripheral side wall, a backing ring (e.g. 12a) of pliable memory retaining material sheltered from internal pressure within the body (e.g. this is the case since the seal blocks the pressure) by the peripheral seal and positioned in close fitting relation around the projecting stopper portion (e.g. this is the case since the backup ring is positioned in close fitting relation with the stopper portion) between the peripheral seal groove and the planar surface of the attachment portion of the closure, the backing ring being axially supported against pressure from the opening entirely by the planar surface (e.g. the planar wall supports the backing ring 12a), the backing ring engaging the tapered peripheral sidewall of the body in interference fit relation and conforming to the tapered peripheral sidewall while being sufficiently stiff as to resist extrusion flow under pressure (this is the case as seen in figures), *such that when the peripheral seal deforms (intended use but as seen in figure 4 the seal deforms) in response to an increase in internal pressure within the body and*

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*extrusion gaps begin to form between the attachment portion of the closure and the body (intended use, but the pressure that flow between the members will also deform the seal), the peripheral seal is extruded in an axial direction (the seal extends both axially and radially when the seal deforms) against the backing ring (the seal is extruded against the backing ring 12a, the limitations above are considered as intended use limitations or method limitations and given little patentable weight in apparatus claim), the backing ring plastically extruding radially outward along the planar surface (e.g. this is the case since the ring can only expand in the radial direction), wherein that portion of the backing ring engaging the tapered peripheral side wall of the body plastically deforms by changing shape (e.g. the backing ring 12a changes shape) and applying sealing pressure (method limitation given no patentable weight in an apparatus claim, but the backing ring provides a secondary seal) at the extrusion gap to prevent the peripheral seal from entering the extrusion gaps (e.g. [E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process).*

As stated applicant has described limitations that are intended use limitations are given little patentable weight in an apparatus claim.

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Morris (US. 3,144,162).

Morris discloses a seal configuration comprising a blowout preventer pressure vessel body (e.g. body 10 having pressure chamber 11) that contains internal pressure (e.g. pressure in

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body 10), the body having an opening (e.g. opening 11) with inwardly tapered peripheral sidewalls (e.g. tapered wall where seal 22 contacts), a closure (e.g. closure 13) that closes the opening, the closure serving as a door (e.g. closure is capable of serving a door) adapted to be opened and closed at will, the closure having an attachment portion larger than the opening (this is the case since the opening is closed by the closure) with a planar surface (e.g. planar surface of 15 that contacts end surface of 19), the closure having an axially projecting stopper portion (e.g. stopper portion after planar surface and having the groove to retain the seal 22) that projects directly from the planar surface (e.g. the stopper portion projects directly after the planar surface) and fits closely and entirely within the opening (e.g. see figure 2, which shows these limitations), the stopper portion having an endless peripheral seal groove (e.g. groove receiving seal 22) extending in spaced relation around the axis in which is positioned a peripheral seal (e.g. 22) that sealingly engages the tapered peripheral sidewalls of the body in interference fit relation, thereby conforming to the tapered peripheral side wall, a backing ring (e.g. 19) of pliable memory retaining material sheltered from internal pressure within the body (e.g. this is the case since the seal blocks the pressure) by the peripheral seal and positioned in close fitting relation around the projecting stopper portion (e.g. this is the case since the backup ring is positioned in close fitting relation with the stopper portion) between the peripheral seal groove and the planar surface of the attachment portion of the closure, the backing ring being axially supported against pressure from the opening entirely by the planar surface (e.g. the planar wall supports the backing ring 19), the backing ring engaging the tapered peripheral sidewall of the body in interference fit relation and conforming to the tapered peripheral sidewall while being sufficiently stiff as to resist extrusion flow under pressure (this is the case as seen in figures), *such that when the*

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*peripheral seal deforms (intended use but as seen in figure 2 the seal deforms) in response to an increase in internal pressure within the body and extrusion gaps begin to form between the attachment portion of the closure and the body (intended use, but the pressure that flow between the members will also deform the seal), the peripheral seal is extruded in an axial direction (the seal extends both axially and radially when the seal deforms) against the backing ring (the seal is extruded against the backing ring 19, the limitations above are considered as intended use limitations or method limitations and given little patentable weight in apparatus claim), the backing ring plastically extruding radially outward along the planar surface (e.g. this is the case since the ring can only expand in the radial direction), wherein that portion of the backing ring engaging the tapered peripheral side wall of the body plastically deforms by changing shape (e.g. the backing ring 19 changes shape) and applying sealing pressure (method limitation given no patentable weight in an apparatus claim, but the backing ring provides a secondary seal) at the extrusion gap to prevent the peripheral seal from entering the extrusion gaps (e.g. [E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process).*

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williamson (US. 5,060,988) in view of Hehl (US. 4,690,436).

Williamson discloses a seal configuration comprising a blowout preventer pressure vessel body (e.g. 12) that contains internal pressure (e.g. pressure in body 12), the body having an opening (e.g. opening that receives stopper portion of 26) with inwardly tapered peripheral sidewalls (e.g. tapered wall where seal 36 contacts), a closure (e.g. closure having 26) that closes the opening, the closure serving as a door (closure is capable of serving a door) adapted to be opened and closed at will, the closure having an attachment portion larger than the opening (this is the case since the opening is closed by the closure) with a planar surface (e.g. surface between 22 and 24), the closure having an axially projecting stopper portion (e.g. stopper portion after 22) that projects directly from the planar surface (e.g. the stopper portion projects directly after the planar surface) and fits closely and entirely within the opening (e.g. see figures 1-2, which shows these limitations), the stopper portion having an endless peripheral seal groove (e.g. groove having surface 24) extending in spaced relation around the axis in which is positioned a peripheral seal (e.g. 36') that sealingly engages the tapered peripheral sidewalls of the body in interference fit relation, thereby conforming to the tapered peripheral side wall, the planar surface is capable of being a support surface (e.g. planar surface is capable of being the support surface for a ring member), *such that when the peripheral seal deforms (intended use but as seen in figure 2 the seal deforms) in response to an increase in internal pressure within the body and extrusion gaps begin to form between the attachment portion of the closure and the body (intended use, but the pressure that flow between the members will also deform the seal), the*

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*peripheral seal is extruded in an axial direction (the seal extends both axially and radially when the seal deforms) against groove wall (the seal is extruded against, the limitations above are considered as intended use limitations or method limitations and given little patentable weight in apparatus claim)* and applying sealing pressure at the extrusion gap to prevent the peripheral seal from entering the extrusion gaps (e.g. [E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process).

Williamson discloses the invention substantially as claimed above but fails to disclose that the backing ring is placed on the stopper portion, the planar surface supports the backing ring entirely, the backing ring contacting the tapered surface. Hehl discloses a member having a stopper with a groove (e.g. groove formed by portion of 14 and 15), a seal (e.g. 11') and a backing ring (e.g. 12a) are placed in the groove and the backing ring is supported by a planar surface (e.g. planar surface of 15 that contact the backing ring 12a). The backing ring extends radially. It would have been obvious to one having ordinary skill in the art at the time of the invention to have the groove of Williamson to have a backing ring as taught by Hehl, to prevent extrusion of the seal (e.g. column 7, line 67 to column 8, line 5).

The above rejection teaches all the limitations of the backing ring of pliable memory retaining material sheltered from internal pressure within the body (e.g. this is the case since the seal blocks the pressure) by the peripheral seal and positioned in close fitting relation around the projecting stopper portion (e.g. this is the case since the backup ring is positioned in close fitting

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relation with the stopper portion) between the peripheral seal groove and the planar surface of the attachment portion of the closure, the backing ring being axially supported against pressure from the opening entirely by the planar surface (e.g. the planar wall supports the backing ring 12a), the backing ring engaging the tapered peripheral sidewall of the body in interference fit relation and conforming to the tapered peripheral sidewall while being sufficiently stiff as to resist extrusion flow under pressure (this is the case as seen in figures), the backing ring plastically extruding radially outward along the planar surface (e.g. this is the case since the ring can only expand in the radial direction), wherein that portion of the backing ring engaging the tapered peripheral side wall of the body plastically deforms by changing shape (e.g. the backing ring 12a changes shape).

### ***Response to Arguments***

11. Applicant's arguments filed 8/26/09 have been fully considered but they are not persuasive.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. P./

Primary Examiner, Art Unit 3676

/Vishal Patel/

Primary Examiner, Art Unit 3676